

WE CLAIM:

1. A method for provisioning logical circuits for intermittent use in a data network, the method comprising:

5 receiving at least one customer order for routing data in the data network for a predetermined time period;

provisioning at least one logical circuit in the data network for routing the customer data during the predetermined time period; and

deleting the at least one logical circuit at the end of the predetermined time period.

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2. The method of claim 1, wherein provisioning the at least one logical circuit for routing customer data during the predetermined time period comprises provisioning the at least one logical circuit prior to the start of the predetermined time period.

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3. The method of claim 2, wherein provisioning the at least one logical circuit prior to the start of the predetermined time period comprises:

determining a maintenance window prior to the start of the predetermined time period; and

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provisioning the at least one logical circuit during the maintenance window.

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4. The method of claim 1, wherein deleting the at least one logical circuit at the end of the predetermined time period comprises deleting the at least one logical circuit following the end of the predetermined time period.

5. The method of claim 4, wherein deleting the at least one logical circuit following the end of the predetermined time period comprises:

determining a maintenance window following the end of the predetermined time period; and

deleting the at least one logical circuit during the maintenance window.

5 6. The method of claim 1, further comprising generating trap data for each logical circuit during the predetermined time period, wherein the trap data comprises utilization statistics for the at least one logical circuit.

10 7. The method of claim 6, wherein the utilization statistics comprise the percent utilization of the at least one logical circuit during the predetermined time period.

8. The method of claim 1, wherein the customer order comprises a quality of service parameter for the logical circuit.

15 9. The method of claim 8, wherein the quality of service parameter comprises at least one of:

- an unspecified bit rate;
- a variable bit rate; and
- a committed bit rate.

20 10. The method of claim 1, wherein the at least one logical circuit is a permanent virtual circuit.

25 11. The method of claim 1, wherein the at least one logical circuit is a switched virtual circuit.

13. The method of claim 1, wherein the data network is a frame relay network.

30 14. The method of claim 1, wherein the data network is an asynchronous transfer mode (ATM) network.

15. A system for provisioning logical circuits for intermittent use in a data network, the system comprising:

at least one network device for establishing a communications path for at least one logical circuit in the data network;

5 a logical element module, in communication with the at least one network device, for receiving trap data generated by the at least one network device, wherein the trap data comprises utilization statistics for the at least one logical circuit; and

a network management module, in communication with the logical element module, for:

10 receiving at least one customer order for routing data in the data network during a predetermined time period;

provisioning the at least one logical circuit for routing the customer data during the predetermined time period; and

15 deleting the at least one logical circuit following the end of the predetermined time period.

16. The system of claim 15, wherein the network management module, in provisioning the at least one logical circuit for routing customer data during the predetermined time period, is operative to provision the at least one logical circuit prior to the start of the predetermined time period.

17. The system of claim 16, wherein the network management module, in provisioning the at least one logical circuit prior to the start of the predetermined time period, is operative to:

25 determine a maintenance window prior to the start of the predetermined time period; and

provision the at least one logical circuit during the maintenance window.

18. The system of claim 15, wherein the network management module, in

deleting the at least one logical circuit following the end of the predetermined time period, is operative to:

determine a maintenance window following the end of the predetermined time period; and

5 delete the at least one logical circuit during the maintenance window.

19. The system of claim 15, wherein the utilization statistics comprise the percent utilization of the at least one logical circuit during the predetermined time period.

10 20. The system of claim 15, wherein the customer order comprises a quality of service parameter for the logical circuit.

21. The system of claim 21, wherein the quality of service parameter comprises at least one of:

15 an unspecified bit rate;
 a variable bit rate; and
 a committed bit rate.

22. The system of claim 15, wherein the at least one logical circuit is a
20 permanent virtual circuit.

23. The system of claim 15, wherein the at least one logical circuit is a switched virtual circuit.

25 24. The system claim 15, wherein the data network is a frame relay network.

25. The system of claim 15, wherein the data network is an asynchronous transfer mode (ATM) network.

26. A method for provisioning logical circuits for routing logical circuit data in a data network during a predetermined time period, the method comprising:

receiving at least one customer order for routing the logical data in the data network during the predetermined time period;

5 determining a maintenance window prior to the start of the predetermined time period;

provisioning the at least one logical circuit during the maintenance window;

10 generating trap data for each logical circuit during the predetermined time period, wherein the trap data comprises utilization statistics for the at least one logical circuit;

determining a maintenance window following the end of the predetermined time period; and

deleting the at least one logical circuit during the maintenance window.

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